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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA,  
SAN FRANCISCO DIVISION

SONOS, INC.,  
Plaintiff and Counter-Defendant,  
v.  
GOOGLE LLC,  
Defendant and Counter-Claimant.

Case No. 3:20-cv-06754-WHA  
Consolidated with Case No. 3:21-cv-07559-  
WHA

**SONOS, INC.'S SUPPLEMENTAL  
BRIEF ON WRITTEN DESCRIPTION**

Judge: Hon. William Alsup  
Courtroom: 12, 19th Floor  
Trial Date: May 8, 2023

1 **I. OVERVIEW OF THE '885 AND '966 PATENTS.**

2 During Wednesday's hearing the Court expressed the view that, in its understanding,  
3 overlapping groups were at the "heart" of the invention and asked for supplemental briefing on  
4 when and how that concept is described in the specification. This brief will answer that question.

5 First, however, Sonos wishes to clarify that overlapping groups are not the "heart" of the  
6 invention. Instead, the claims are directed to a novel mechanism for grouping zone players into  
7 zone scenes which, among other things, allows for overlapping groups. What is that mechanism?  
8 Put simply, it is the combination of (i) separating the steps of having users *define* the zone scenes  
9 from the step of *configuring* the players within a scene, (ii) configuring the players within a group  
10 (so that they coordinate with each other to output media in synchrony) *only* when the group is  
11 invoked, and (iii) the messages passed from the controller to the players to implement this.

12 This mechanism is most easily explained by looking at Figure 6 of the patents in suit.  
13 Sonos has consistently used that figure to explain the invention. Sonos did that during the  
14 summary judgment proceeding (*see, e.g.*, Sonos's Reply in Support of Its Motion for Summary  
15 Judgment of Infringement of '885 Patent Claim 1 (Dkt 274), at 9-12; Sonos's Patent Showdown  
16 Summary Judgment Presentation (Dkt. 312-1), at 24-30; Dkt. 308 (Jul. 13, 2022 MSJ Hr'g. Tr., at  
17 102:20-106:2)), in its opening in front of the jury (*e.g.*, 5/8 Trial Tr. at 210:8-18), in the brief  
18 summation the court allowed on Wednesday (*e.g.*, 5/10 Trial Tr. at 641:20-642:9), and with its  
19 expert technical witness, Dr. Almeroth (*e.g.*, 5/10 Trial Tr. at 680:23-683:15).

20 Conversely, Sonos has never said that the invention is overlapping groups, and the patents  
21 don't say that either. *See* '966 at 1:31-34 ("the invention is related to method and apparatus for  
22 controlling or manipulating a plurality of multimedia players in a multi-zone system."). Instead,  
23 Sonos has explained (and will continue to explain) that the invention ***allows for*** a single zone  
24 player to be a member of two distinct zone scenes. Put differently, the ability to add a zone  
25 player to two different groups is one of the ***features*** enabled by the invention. But we have  
26 discussed it because this feature is easy for the jury to understand, and the prior art that Google  
27 has pointed to doesn't describe a mechanism that allows it, so it's a simple way to show the jury  
28 that Google's invalidity theory is wrong.

1           The Court’s next question might be “how does the supposedly inventive mechanism  
 2   enable overlapping groups?” The answer to those questions turns on the fact that the *way* you  
 3   configure the members of a group to play together is to coordinate between them so that they can  
 4   output audio in synchrony. *See, e.g.*, ’966 patent, Fig. 6, step 614 (“execute commands to  
 5   synchronize the zone players”). Put differently, to configure a group you put the players into a  
 6   mode where they pass timing messages back and forth so that they stay in lock step when playing  
 7   audio together. *See, e.g.*, 5/10 Trial Tr. at 687:3-11. This means that you **cannot** have two  
 8   groups with overlapping members while those groups are configured to play music in  
 9   synchronicity. Why? Because if player A stays in lock step with player B, and player B stays in  
 10   lock step with player C, then all of A, B and C are in lock step with each other and you *have one*  
 11   *group, not two*. By moving to a system where you allow a user to **define** the group (specifying  
 12   both its membership and theme) **without** reconfiguring the players so that they are coordinating  
 13   with one another, you avoid this problem. Instead, the multiple, overlapping groups can exist  
 14   simultaneously in the system in their uninvoked state. But the Court should also note that the  
 15   flexibility to allow a single zone player to be assigned to two different groups is not the only  
 16   advantage of Sonos’ approach. As another example, because the players in a group are *not*  
 17   synchronized for audio playback at the time the user defines the zone scene, a player can be  
 18   added to a group without taking it out of stand-alone mode. This allows you to, for example, add  
 19   a player to a group without forcing that player to start playing music being played by another  
 20   member of the group. With the prior art dynamic grouping, this wasn’t possible.<sup>1</sup>

21           This should also answer the Court’s question about why the claims are on the longer side.  
 22   Put simply, they are long because they describe the entire sequence of steps needed to implement  
 23   the invention, which is more than a simple idea like “create overlapping groups.” It also allows  
 24   us to respond to the Court’s expectation that there should “be column after column that would

25           <sup>1</sup> The Court should also note that Party Mode is a dynamic group and does not use the mechanism  
 26   recited in the claims. With Party Mode the identity of the group members is **not** determined  
 27   before the group is invoked (either by the user or by the system). Instead, Party Mode contains a  
 28   mechanism that allows the system to find zone players attached to the network and to both (i)  
 assemble them into a group and (ii) configure them to play in synchronicity as part of a **single**  
 process. Put differently, the membership of the group formed by party mode is **indeterminate not**  
 predefined – meaning it *isn’t known* by the system until after party mode is invoked.

1 explain to an engineer how to implement overlapping zone scenes....” 5/10 Trial Tr., at 660:15-  
 2 19. Respectfully there *is* “column after column” about how to implement the invention. For  
 3 example, the specification describes the functional steps needed to decouple the group definition  
 4 from invocation and configuration (’966 patent at 10:30-63, Fig. 6; *see also* ’966 patent at 1:67-  
 5 2:17), the user interfaces for defining and saving zone scenes (’966 patent at 10:12-19, Figs. 5A  
 6 & 5B), and interfaces for invoking zone scenes (’966 patent at 11:4-19, Figs. 7 & 8).

## 7 **II. THE SPECIFICATION PROVIDES WRITTEN SUPPORT FOR THE CREATION** 8 **OF OVERLAPPING GROUPS.**

9 First, the specification provides extensive written description of the fact that the user  
 10 defines and saves the zone scene without configuring the zone players in that group so that they  
 11 start coordinating with one another. This is shown, for example, in Figure 6. The steps in that  
 12 figure say to configure the zone scene (603), decide which zone players will be associated with  
 13 the scene (604) and then save the scene (606). And, as shown in Figure 6, this happens before the  
 14 zone scene is invoked (610) and the zone players are synchronized for audio playback (614). *See*  
 15 *also* ’855 patent at 10:30-11:5. Although this disclosure does not in itself disclose overlapping  
 16 groups, we include it here because (as noted above) it provides the underlying mechanism that  
 17 **allows** users to create overlapping thematic groups. Thus, it shows that the inventors were not  
 18 only in possession of the *idea* of having a zone player be a member of more than one group but  
 19 the mechanism and algorithmic sequence that allows that to happen.

20 Second, the specification explains the process whereby users define groups and specify  
 21 that, in that creation process, multiple zone scenes can exist at the same time. *See* ’885 Pat., FIG.  
 22 6, 10:51-52 (after one “zone scene” has been saved a user may “go back . . . to **configure another**  
 23 **[zone] scene** if desired”); FIG. 8 (disclosing “Wakeup” and “Garden Party” scenes that are in  
 24 existence at the same time); *see also id.*, 8:52-9:19 (disclosing four different examples of “zone  
 25 scenes” for a given system). Having multiple zone scenes is (of course) a prerequisite for having  
 26 two zone scenes that share a common member.

27 Third, the specification explains that when a user is selecting which “zone players to add  
 28 during setup of each “zone scene,” the user is presented with “ALL the zones in the system,

1 *including the zones that are already grouped.” See ’885 Pat., 10:12-19; 10:4-6; 10:36-42.*

2 Because a second zone scene can be created using players which are already part of another zone  
3 scene, the specification supports the idea that one zone player can be part of two different zone  
4 scenes. Importantly, *this is exactly what the claim requires*. More specifically, the claims do not  
5 use the term “overlapping” – that’s just a term of convenience which the lawyers (on both sides)  
6 have used to describe the claim language. So the fact that the term “overlapping” doesn’t appear  
7 in the specification is irrelevant. What matters is whether the specification teaches that a given  
8 zone player *can be* put into two different zone scenes. And this passage teaches exactly that.

9 Fourth, the specification discloses that “various scenes may be saved in any of the [zone  
10 player] members in a group.” ’885 Pat., 2:56-59. This necessarily means that a given zone player  
11 can be part of more than one zone scene. Why? Because if a zone player could be part of one  
12 and only one scene, there would be no point in saving multiple scenes on one player. Put  
13 differently, the only reason to have multiple scenes saved on a player is because the player can be  
14 part of multiple scenes. And again, that is *exactly* what overlapping zone scenes are – *i.e.* two  
15 different scenes that have at least one common zone player.

16 Fifth, in the discussion at 8:52-9:19, the ’885 Patent discloses four examples of “zone  
17 scenes” in a given system that have overlapping members:

- 18 • a first “zone scene” named “Morning” that comprises a predefined group of the  
19 Bedroom, Den, and Dining Room “zone players”;
- 20 • a second “zone scene” named “Evening” that also comprises one predefined group of  
21 the Bedroom, Den, and Dining Room “zone players” (as well as another predefined  
22 group of the Garage and Garden “zone players”);
- 23 • a third “zone scene” comprising one predefined group of “zone players” located  
24 “upstairs” and another predefined group of “zone players” located “downstairs” and
- 25 • a fourth “zone scene” that comprises a predefined group of “all zones” in the system,  
26 including the Bedroom, Den, and Dining Room “zone players.”

27 From these disclosures, a POSITA would understand that the inventor had possession of  
28 (i) separating the steps of allowing a user to define the zone scene (by selecting its members and  
theme) from the step of configuring the players to synchronize with each other, (ii) that this  
mechanism *allowed for* (among other things) the creation of overlapping zone scenes and (iii)

1 *implementing* his invention so as to allow users to define multiple zone scenes that contained one  
 2 or more overlapping members. That is more than enough to provide written description for the  
 3 “overlapping group” feature of the invention. *E.g., Spine Sols., Inc. v. Medtronic Sofamor Danek*  
 4 *USA, Inc.*, 620 F.3d 1305, 1312 (Fed. Cir. 2010) (affirming summary judgment of adequate  
 5 description) (willfulness abrogated by *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93 (2016)).

6 The Court should also note that all of the passages cited above are fully supported by the  
 7 2006 provisional to which the asserted patents claim priority. In particular, the provisional  
 8 application includes an appendix which provides support for each of these passages, and which  
 9 was incorporated by reference into the original 2007 utility application and into the ’885 and ’966  
 10 patents. TX6611, TX6829; ’885 patent at 1:23-24; *see* 37 C.F.R. §1.57(b). Moreover, it is  
 11 permissible to move material from the provisional application incorporated by reference directly  
 12 into the specification (as Sonos did here). 37 C.F.R. § 1.57(g).

13 Finally, the Court asked whether a POSITA would know how to configure zone players  
 14 for synchronized audio playback as of the priority date and how the specification provided written  
 15 description. By the time Sonos filed the provisional application, it had published its mechanism  
 16 for synchronizing smart speakers in another patent family. *See* PCT/US04/23102 (published  
 17 February 10, 2005). And Google has been found to infringe two patents from this patent family  
 18 in the ITC. *Certain Audio Players and Controllers, Components Thereof, and Products*  
 19 *Containing the Same*, Inv. No. 337-TA-1191, Commission Opinion, at 14-22 (finding  
 20 infringement and validity). So yes, Sonos had told the world *all* the implementing details about  
 21 how to synchronize smart speakers at the time it filed the provisional in this case.

22 With respect to written description, the specification explains (among other things) that  
 23 “audio playback synchronization are sent via the RF interfaces,” that “the received signals in one  
 24 zone player can cause other zone players in the group to be synchronized so that all the zone  
 25 players in the group playback an identical audio source or a list of identical audio sources in a  
 26 timely synchronized manner,” and that “data including the parameters is transported from a  
 27 member (*e.g.*, a controller) to other members in the scene so that the players are caused to  
 28 synchronize an operation configured in the scene.” ’885 patent at 7:49-51, 10:65-11:3.

1 Dated: May 11, 2023

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